

SINCLAIR OIL 1 KRYGER
8S-23W-32 NE SW YUMA -22

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COUNTY YUMA AREA LEASE NO.

WELL NAME SINCLAIR OIL 1 KRYGER 14-22
LOCATION SEC 32 TWP 8S- RANGE 23W FOOTAGE est. 2450 ft 2150 fwl
ELEV GR KB SPUD DATE March 1925 STATUS COMP. DATE ~Apr 1925 TOTAL DEPTH 1400

CONTRACTOR

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
			SAMPLE DESCRIPT.
			SAMPLE NO.
			CORE ANALYSIS
			DSTs

REMARKS ? any relation between Sinclair Oil # 1 Krugger and the Yuma Basin Oil Co. # 1 B.W. Sinclair ?	APP. TO PLUG
see p/n 14-14	PLUGGING REP.
	COMP. REPORT

WATER WELL ACCEPTED BY _____ COMP. REPORT

BOND CO.

BOND AMT. \$ _____ BOND NO. _____
CANCELLLED DATE _____

FILING RECEIPT SEARCHED INDEXED ORGANIZATION REPORT

API NO. 02-027- SHEET BOOK _____ PLAT BOOK _____

PERMIT NUMBER ID 14-22

(over)

~~275-1/2m~~

~~SINCLAIR WELL~~ ~~Homer Krueger~~

~~Location: Sec. 32, T₃₂, R. 23W., N_{1/4} Ground Elv. 120~~

~~Cased: 617' 16-inch, 12 gauge stovepipe casing~~

TD 1400

Drilled: March & April 1925

Remarks: Granite formation; later drilled to 1,400'

(See Proj. Paper
726-D)

Table 1, p. 4
D H 15)

0	35	soil/sand
35	50	sand/gravel
50	53	clay
53	59	clay/gravel
59	132	hard clay
132	135	soft sandstone
135	188	heavy water gravel
188	456	sandstone
456	458	clay
458	503	sand/some gravel
503 - 382	551 - 430	sand/gravel water
551	566	blue shale
566	576	clay
576	590	sandstone
590	594	clay
594	597	sand
597	617	hard clay

Contractor: J.W. Bolt

14-22

GEOPHYSICAL FIELD INVESTIGATIONS *USGS AP 726-D, 1973*TABLE 1. — *Depths of Tertiary and pre-Tertiary horizons in wells in the Yuma area*

[Location of wells shown on pl. 1. Leaders (.....) indicate not penetrated; query (?) alone indicates that penetration is questionable; with figures, that depth is questionable. USGS LCRP, U.S. Geological Survey lower Colorado River project test well; USBR, U.S. Bureau of Reclamation test well]

Well No.	Name of well or owner	Land surface elevation (ft)	Total depth (ft)	Depth, in feet, to top of unit					Remarks
				Transition zone	Bouse Formation	Older marine sedimentary rocks	Nonmarine sedimentary rocks	Basement complex	
DH-1	USGS LCRP 14	155.1	505	.....	209	.....	471	.....	Possible basement complex at 703 ft.
2	USGS LCRP 25	143.8	715	.....	548	.....	687	(?)	Possible nonmarine sedimentary rocks at 207 ft.
3	Tanner Paving Co.	195	396	.....	.....	.....	(?)	.....
4	Gila Valley Oil & Gas Co.	145	2,140	.....	422	.....	482	.....
5	Karmath I.	140.5	501	.....	422	.....	497	.....
6	B. Palon	423	603	.....	700	.....	563	.....
7	do	395	1,085	.....	.....	.....	1,082	.....
8	USBR CH-704; USGS LCRP	150.8	1,997	794(?)	1,045	1,396	.....	.....
9	USBR CH-8RD	128.5	360	.....	(?)	.....	.....	.....
10	San Carlos Hotel	145	173	.....	.....	.....	173	.....
11	Yuma School District No. 1	175	404	.....	.....	.....	(?)	.....	Possible nonmarine sedimentary rocks at 280 ft.
12	Abe Marcus Pcol	175	478	.....	.....	.....	(?)	470	"Granite" at bottom. Possible nonmarine sedimentary rocks at 300 ft.
13	S & W Ranches	141	191	.....	.....	.....	190	.....	Do.
14	Stardust Hotel; USGS LCRP	197	1,090	.....	.....	.....	1,085	.....	Porphyritic quartz monzonite at bottom.
15	13. Sinclair Oil Co. Kryger 1	120	1,400	.....	(?)	.....	1,243	1,356	"Granite" at bottom. Possible Bouse Formation at 972 ft.
16	Yuma County Fairgrounds	212	306	.....	.....	.....	292	.....	Do.
17	USGS LCRP 25	125.4	1,777	1,033	1,115	.....	1,380	.....	Bottom in alluvium or transition zone.
18	Arizona Public Service Co.	117	978	(?)	.....	.....	.....	.....
19	USGS LCRP 28	118.7	2,466	1,927	.....	.....	.....	1,431	Drilled 1,646 ft into granitic basement.
20	Colorado Basin Associates Elliott 1.	110	3,277	.....	.....	.....	.....	.....
21	Old oil test	118	730	.....	.....	.....	.....	730	Reported in Kovach, Allen, and Press (1962).
22	USBR CH-21YM	188	285	.....	.....	.....	.....	267	Cored porphyritic quartz monzonite.
23	USGS sugar hole	195	90	.....	.....	.....	90	.....
24	do	196	79	.....	.....	.....	79	.....
25	USBR CH-20YM	196	64	.....	.....	.....	47	.....	Cored porphyritic quartz monzonite.
26	USGS LCRP 25	204.6	2,318	2,101	3,112	3,802	4,937(?)	.....	Top of nonmarine sedimentary rocks may be at 4,302 ft.
27	Colorado Basin Associates Federal 1.	170	6,007	2,367	.....	.....	.....	.....	Possible transition zone at 1,748 ft; possible Bouse Formation at 2,515 ft.
28	M. P. Stewart Co. Federal 1.	181	3,660	(?)	(?)	(?)	.....	.....
29	USGS LCRP 17	94	2,946	2,514	3,395	4,350	.....	.....
30	Yuma Valley Oil & Gas Co. Musgrave 1.	90	4,868	2,525	.....	.....	.....	.....
31	USBR CH-28YM	577.5	1,427	1,285	.....	.....	.....	.....

derlie most of the alluvium beneath the desert plains and river flood plains. This unit is composed of strongly to weakly indurated clastic rocks ranging from mudstone and shale (in part, of lacustrine origin) to megabreccia and boulder conglomerate. Fanglomerate, composed of angular to subrounded clasts of igneous and metamorphic rocks of local origin, seems to be the most widespread type.

The Tertiary nonmarine sedimentary rocks have an upper surface with at least several hundred feet of local relief and overlie a basement surface of even greater relief. The maximum thickness of this unit is not known, but at least 5,000 feet of the unit is exposed in both the Chocolate and the Laguna Mountains, and the aggregate stratigraphic interval exposed in these mountains may be more than 10,000 feet.

The Tertiary volcanic rocks, exposed most extensively in the Chocolate Mountains, are interbedded with the nonmarine sedimentary rocks. Included in this unit are tuffs and flows ranging in composition from basalt or basaltic andesite to rhyolite. Although an aggregate

thickness of more than 2,000 feet is exposed in the Chocolate Mountains, the only known subsurface occurrence of this unit is an altered basalt penetrated at a depth of 342-360 feet in well DH-9, 3 miles north of Yuma (table 1).

Potassium-argon dates for several of the volcanic rocks from the Chocolate and Laguna Mountains range from 23 to 26 m.y. (Olmsted and others, 1973); a middle Tertiary age is therefore indicated for the volcanic rocks and associated nonmarine sedimentary rocks.

The older marine sedimentary rocks are composed of somewhat indurated fine-grained sandstone and interbedded siltstone and claystone. Their age is uncertain, but their stratigraphic position suggests that they probably intertongue with the upper part of the nonmarine sedimentary rocks of Tertiary age. The older marine sedimentary rocks occur entirely in the subsurface in the Yuma area; they have been penetrated in wells DH-8, DH-27, and DH-30, and possibly in DH-28 (table 1). The maximum known thickness of this unit within the area of well information is about 1,000 feet.

D26

GEOPHYSICAL FIELD INVESTIGATIONS USGS PP 726-D, 1973

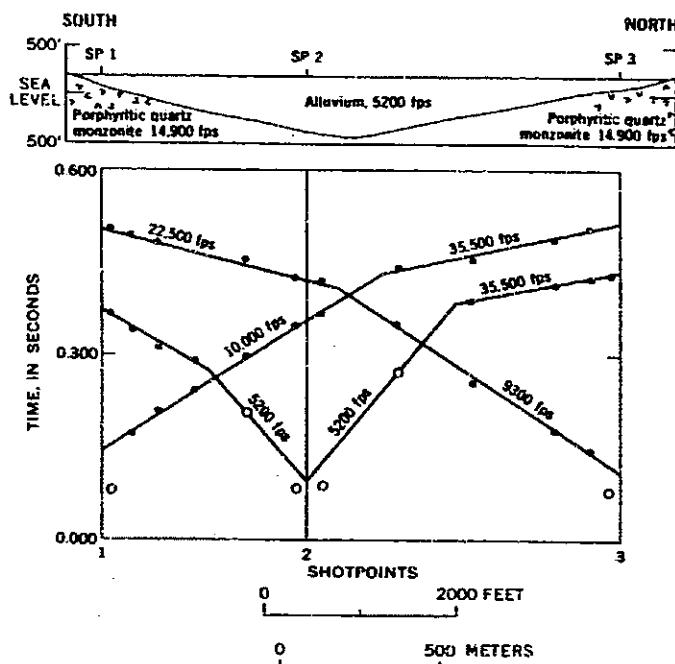


FIGURE 14. — Seismic-refraction profile 7 along Pacific Avenue in Yuma between two basement outcrops. SP, shotpoint; circles, alluvium arrivals; dots, basement arrivals.

anomaly, all bottomed in granitic basement rock — probably the porphyritic quartz monzonite exposed in the area (table 1). Of these wells, only possibly DH-12, which is near the exposures of Tertiary breccia and conglomerate (pl. 1), and DH-15 penetrated the Tertiary nonmarine sedimentary rocks between the alluvium and the basement complex. Well DH-14 penetrated "granite" (probably porphyritic quartz monzonite) at a depth of 1,085 feet beneath predominantly fine-grained alluvium. Well DH-15, farther down the western flank of the basement high from DH-14, appears to have penetrated the Bouse Formation and about 155 feet of underlying Tertiary fanglomerate between the alluvium and the basement complex, which was penetrated at a depth of 1,398 feet (table 1).

The area between the Mesa and Yuma anomalies was explored by gravity profile C-C' (fig. 15). C-C' extends north-northeastward from DH-24, across the gravity saddle between the Yuma and the Mesa anomalies, to the southernmost basement outcrop on the Yuma anomaly (pl. 5). If we assume a variable density contrast in accord with the data of figure 4 (0.44 g cm^{-3} for depths of 0-1,000 ft and 0.30 g cm^{-3} for depths greater than 1,000 ft), the computed model has a maximum

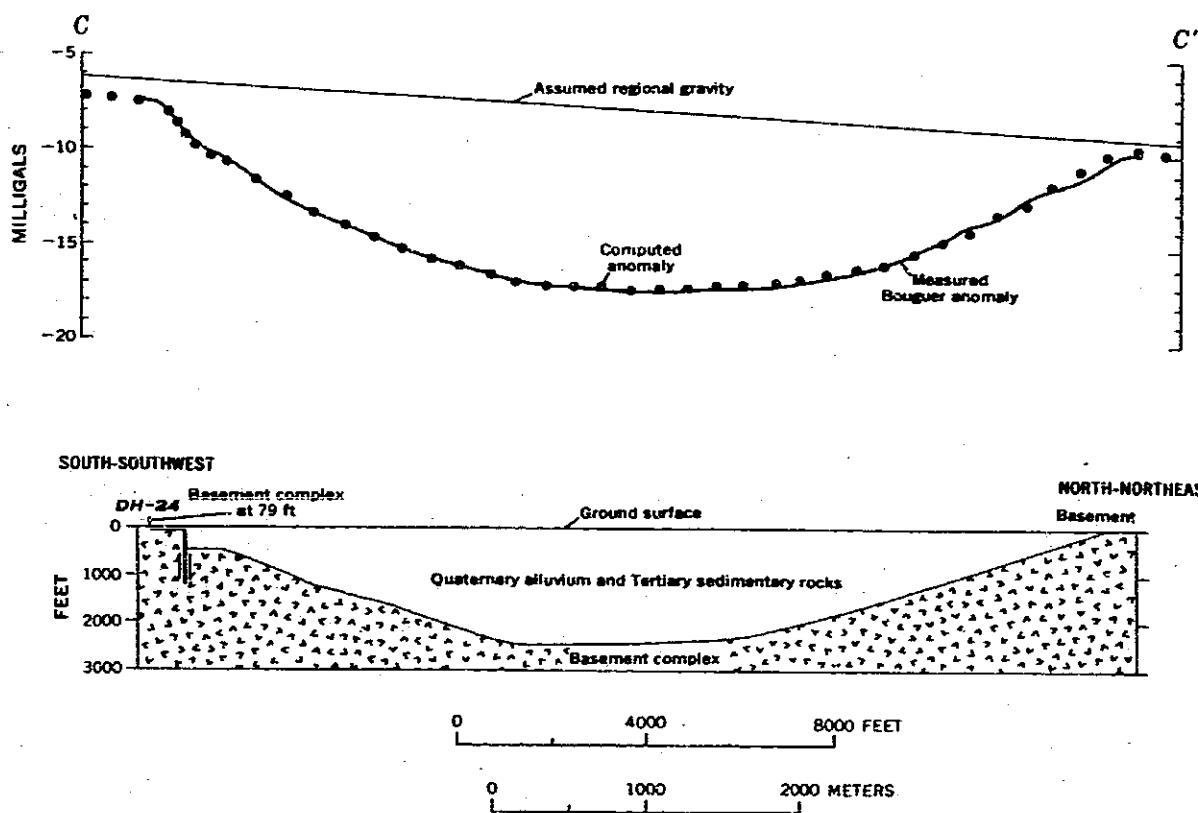
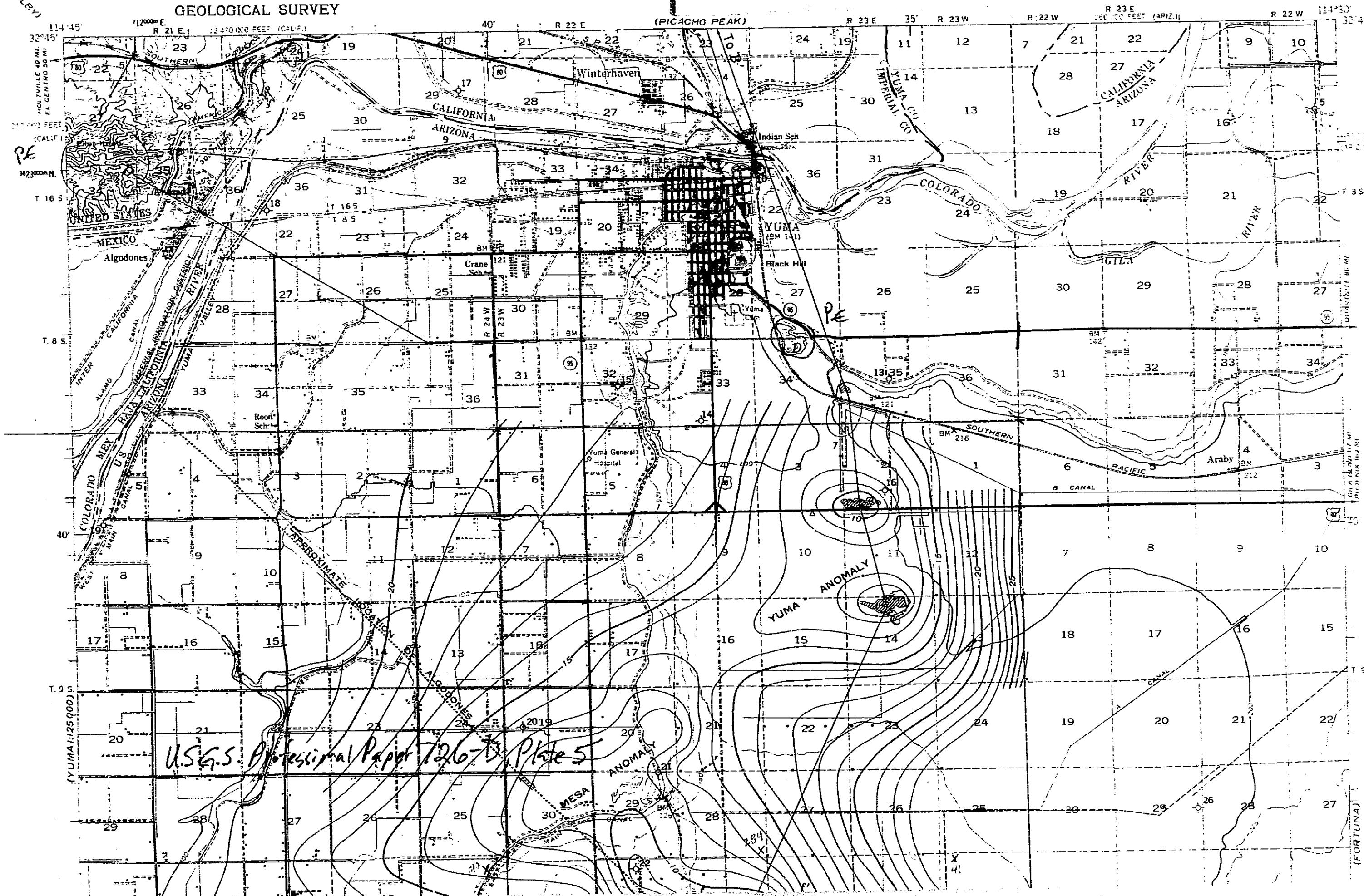


FIGURE 15. — Observed and computed gravity anomaly on profile C-C' across the gravity saddle between the Yuma and Mesa anomalies. Maximum sediment thickness is about 2,600 feet near the center of the trough.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GILBY



U.S.G.S. Professional Paper 126-73, Plate 5

CLAY OIL 1 KRYGER
NE 5W YUMA - 22

OIL AND GAS INVESTIGATIONS
MAP OM-201

By
Thomas F. Stipp and Helen M. Beikman

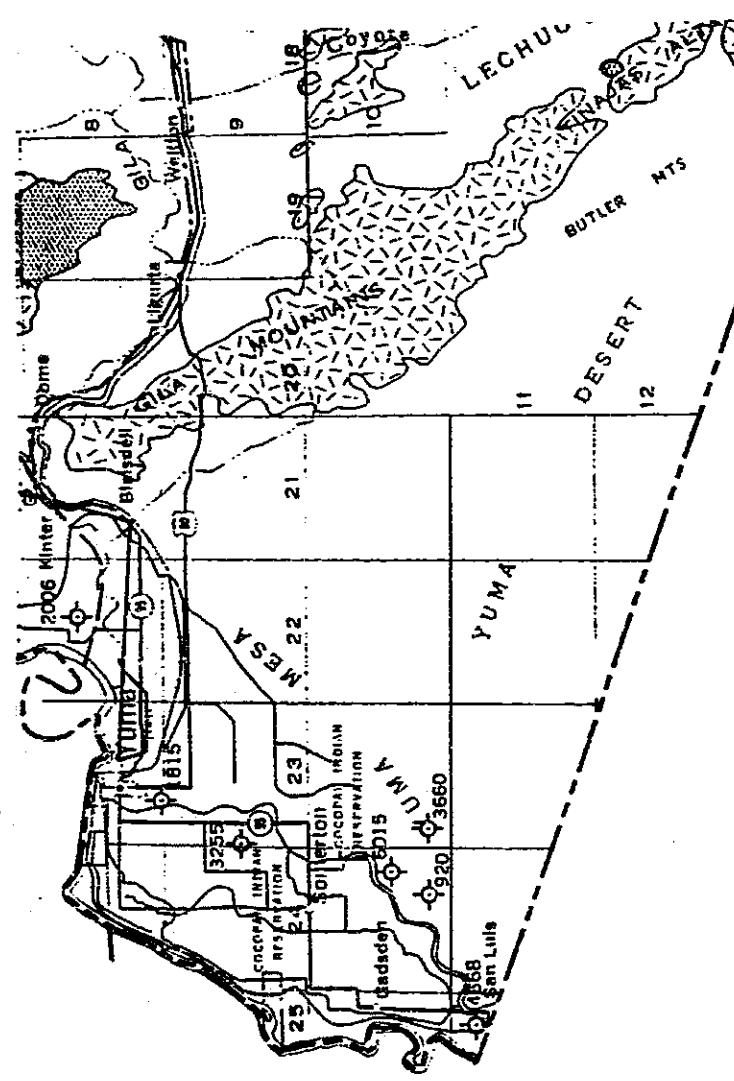
1959

→ To late since as Garfield Rpt of 1928, location same as Sinclair Oil / Kaiser / in USGS Map 726-D file #17

Southwest quadrant

NE 1/4 NW 1/4 4	7 S 12 W Yuma	Pat'd	Mitchell and others, Dunford 1	1943	2000	Qd	v	A
SE 1/4 SW 1/4 22	8 S 13 W do	do	Lotus Gold, Royal 1	1928	2630	Qd	v	A
SW 1/4 NW 1/4 19	9 S 23 W do	do	Yuma Basin Oil Co., Sinclair 1	1928	1815	Qd	v	A
NE 1/4 NE 1/4 31	10 S 23 W do	do	Colo. Basin Assoc., Inc., Newcomer and Paquinelli 1	1928	3255	Qd	v	A
NW 1/4 SW 1/4 24	10 S 24 W do	do	Colo. M. P. Stewart, Stewart 1	1924	189	Qd	gr	A
NW 1/4 NW 1/4 35	10 S 24 W do	do	Colo. Basin Assoc., Inc., Federal 1	1925	189	Qd	QT	A
NE 1/4 SE 1/4 15	8 S 22 W do	do	J. M. Hickey, Turbeville 1	1925	177	6015	Qd	A
NW 1/4 NE 1/4 11	11 S 25 W do	do	Pat'd, Gila Valley Oil and Gas Co., Kamoth 1	1924	160	920	Qd	A
South of Yuma	do	do	Yuma Valley Oil and Gas Co., Musgrove 1	1925	4173	2006	QT	A
	do	do	Colo. Delta Oil Co.	1940	90	4868	Qd	A
	do	do		1921	730	Qd	QT	A

* Location is approximate.



May 1, 1928

SCOUT REPORT OF ARIZONA

YUMA COUNTY:

B. W. Sinclair, SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 32, T. 9 S., R. 23 W., G. & S.R.M. Drilled to depth of 1,815 feet. Water not shut off. Operations suspended in February, 1926. Some showings of oil and gas reported. There is no evidence of structure. 14-14? Confused with Sinclair-Kruger #1?

MARICOPA COUNTY:

14-11 Frank Baird. Well No. 1. NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 4, T. 8 S., R. 13 W., G. & S.R.M. Drilling at 2,400 feet in water and with cable tools, carrying 10-inch casing. Gas sand encountered at 1,650 feet, no oil shows. Formations penetrated mostly red clay, sand, gravel, and boulders. Well is located on a topographic high in an extremely broad valley. Well visited April 10, 1928. Information from Mr. Barkley, superintendent. (Yuma County)

Camelback Well. NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 30, T. 3 N., R. 4 E., G. & S.R.M. Drilled in 1906 and 1907 to depth of 2,789 feet.

Condensed Log of Well.

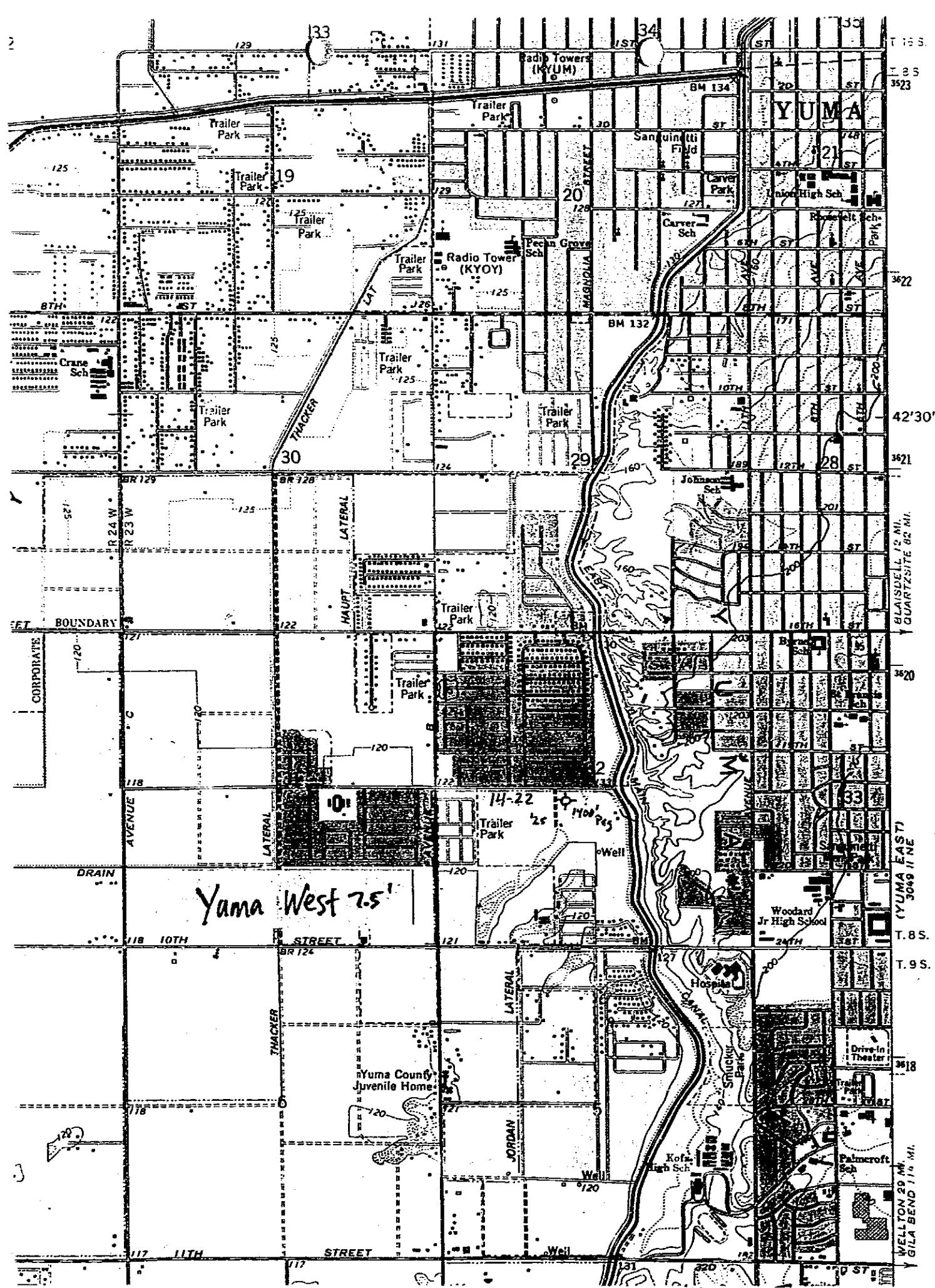
5-5/8 inch casing set at 1,550 feet.

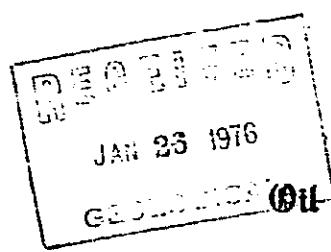
0-	130 - Soil and cemented hardpan	1,605 - 1,630 - Hard gray sand
130-	138 - Loose granite - water	1,630 - 1,680 - Hard gray sandstone
138-	388 - Sandstone	1,680 - 1,690 - Conglomerate - gray and red
388-	390 - Granite and quartz	1,690 - 2,250 - Gray and brown sand and sandstone
390-	415 - Shale	2,230 - 2,313 - Red and gray clay
415-	423 - Blue granite - very hard	2,313 - 2,374 - Gray sandstone with streaks of clay and gray sandstone. -
423-	846 - Shale and heavy clay	2,374 - 2,497 - Oil smears on tools
846-	905 - Shale, slate, and clay	2,497 - 2,668 - Sand with trace of
905-	906 - Sand - oil showing	2,668 - 2,690 - Clay and gray sandstone
906-1,028	906 - Shale and clay	2,690 - 2,698 - Water sand
1,028-1,064	Gray sandstone - trace oil	2,698 - 2,768 - Gray sandstone
1,064-1,110	Clay	2,768 - 2,769 - Clay and sand
1,110-1,117	White silica sandstone	
1,117-1,300	Coarse gray sandstone	
1,300-1,349	Clay	
1,349-1,410	Sandstone	
1,410-1,505	Sandstone	

Beardsley No. 1. SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 25, T. 4 N., R. 2 W., G. & S.R.M. Operations suspended in June, 1923. Well was abandoned at depth of 3,350 feet. Rig and all equipment removed. Well located in broad alluvial valley with no evidence of structure. Well visited April 11, 1928. 7-17

Condensed log of Beardsley No. 1.

0 -	746 Sand, clay gravel
746 -	1,743 Clay and water sands
1,743 -	1,745 Brown sandstone
1,745 -	1,930 Clay and brown sand
1,930 -	1,935 Brown sandstone
1,935 -	2,208 Clay
2,208 -	2,210 Gray sand showing globules of oil
2,210 -	2,430 Sand and sandy lime
2,430 -	2,518 Lime
2,518 -	2,540 Brown sand, showing light oil
2,540 -	3,040 Sand, sandstone with streaks of shale
3,040 -	3,350 Hard blue lime





OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

X-1013-100000000000
PHOENIX, ARIZONA 85012
PHONE: (602) 271-5161

January 23, 1976

Atlanta Richfield Company
501 Lincoln Tower Building
Denver, Colorado 80203

Attention: Exploration Department

Gentlemen:

Our records indicate that Sinclair Oil & Refinery Company drilled a well in Yuma County, Arizona Circa 1925 in the } SE/SE/4 Sec. 32, T9S, R23W to a total depth of 1850'. The } United States Geological Survey indicates this well to be drilled in Sec. 32, T8S, R23W to a dotal depth of 1400'. → P/N 14-14 → P/N 14-22

Same well?
or
2 different wells?

If your company happen to acquire the old drilling records of Sinclair and could help us in resolving this difference in location it would certainly be appreciated.

Very truly yours,

W.E. Allen
W. E. Allen, Director
Enforcement Section

WEA/sl

February 10, 1976

Dear Mr. Allen:

Our records for this portion of Arizona are very sketchy; however, they do indicate a test to be drilled at the subject location. Operator is shown as B. W. Sinclair and not Sinclair Oil & Gas Company, total depth 1815', completed February 1926. Copy of our scout ticket is attached. I trust that this may be of some benefit.

D. E. Daugherty
D. E. Daugherty
District Geologist
Atlantic Richfield Company

Att.

RECEIVED

FEB 17 1976

OIL & GAS COMM.

FORM 61 DPO DATA
COUNTY YUMA FIELD ✓

MAP NO. 3 SEC. 32 TWP 9^c RGE 23W
COMPANY Yuma Basin Oil Co. B.W. Sinclair

WELL NO. 1 FARM

ELEVATION: FEET FROM LINES:

TRINITY	SKN	N	E
BL GYP	R P	S	W
WELL ANV	BURB		
GR WASH	BTVL	SE SE	
CHASE	BR LS	FIRST REPT. LOC RIG	
TARKIO	BOOCH	COMMENCED DRILLING COMP <u>Feb 1926</u>	
HOXBAR	ATOKA	CASING RECORD:	
TOPEKA	GILC		
PAW LS	DUTCH	TUBING RECORD:	
HOOVER	BURG	GAS SAND OIL SAND	
OREAD	GORHAM	TOTAL DEPTH <u>1815</u> P. B. DEPTH	

95 14-74

PC	M	PPW	AGS	MC	N	S	W	CITY	FIELD	CL	CONFINEMENT	✓	
1	85	23W	32		SE	SE	Ar Yum			26			
2	DATA CONFS BELOW				OPERATOR				WELL NO & NAME	ELEVATION	TOTAL DEPTH	INITIAL PROD	END PROD
3	Yuma Basin Oil Co.				1 Sinclair				SURFACE CASING	CASING	PLUG BACK	REFERENCE CODE	
4	LOCATION DESCRIPTION				PERFORATED INTERVALS				GRAVITY	CUT	CHORE	END PROD	
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CODES				JEL WELL CLASS				ECD PRACTICE PRODUCTION				ABBREVIATIONS	
WILDCAT - W				FIELD - F				1 - RECOMPLETION				O - OH	
BEVEL - B				STEAD - S				2 - INJECTION				S - SHOW	
B - DEEPING				B - REDRILL				3 - BOPD FLOW				G - GAS	
								4 - BOPD FLOW				W - WATER	
								5 - BOPD FLOW				DATA CONTAINED HEREIN NOT WARRANTED	
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March 31, 1970

Mr. Benjamin F. Hoffacker, Jr.
306 Midland National Bank Building
Midland, Texas 79701

Dear Mr. Hoffacker:

In regards to the wells you inquired about, we have an electric log on the Colorado #1 Federal (total depth 6015'). Also, there is an AmStrat log (sample log) on this well which is available at: American Stratigraphic Company, 1820 Broadway, Denver 2, Colorado.

No file
As to the Yuma #1 Sinclair, I am sorry that we have nothing at all in our files; however, it might be worth your while to inquire for data on this well at the U. S. Geological Survey in Yuma. If we can be of further assistance, please advise.

Yours truly,

James Scurlock
Geologist

JS:jd
Enc.

Yuma 1 SSW 9S-23W-32 SESE
Ogallala Id. No. 14-14

Log of well drilled in Section 32 seven miles south of Yuma

Commenced October 5, 1924:
Completed January 25, 1925:

Nick Carter; Driller.

0 - 15 surface sand
15 - 35 gravel
35 - 72 clay
72 - 98 water sand
98 - 163 clay
163 - 291 sandy shale
291 - 327 water sand
327 - 419 grey shale
419 - 678 shale and boulders
678 - 739 red bed
739 - 744 lime shell
744 - 789 sand
789 - 863 sandy shale
863 - 903 red bed
903 - 1012 sandy shale and lime shells
1012 - 1019 sand - showing gas
1019 - 1078 sandy shale
1078 - 1137 grey shale
1137 - 1206 sandy shale and lime shells
1206 - 1226 sand - showing oil
1226 - 1393 rotten shale
1393 - 1409 lime shell
1409 - 1481 brown shale
1481 - 1531 sandy shale and lime shells
1531 - 1596 red bed
1596 - 1639 hard shale
1639 - 1683 shale and shells
1683 - 1756 hard sand
1756 - 1800 sandy shale
1800 - 1828 oil sand: cored 1824-1828, fine brown sand, strong odor.
1828 T.D. shut down for casing.

X 14-14

RECEIVED
JAN 27 1975
O & G CONS. COMM.

Smith

SPM

No. E115CMT

HASTINGS MINING CO.
LOS ANGELES CALIFORNIA
MINE COAL AND IRON DUST GRAVITE

Smith - Hastings Coal & Iron Co.

U.S.B.R., C.H. 28YM Yuma City #14-23
13S.20W.2

WELL NAME <u>USBR CH28YM</u>				<u>2,135-204</u>
LOCATION	SEC <u>2</u>	TWP <u>13S</u>	RANGE <u>20W</u>	FOOTAGE _____
ELEV <u>578</u>	GR _____	KB _____	SPUD DATE _____	STATUS _____
				TOTAL DEPTH <u>1427</u>
CONTRACTOR				
CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY _____
				DRILLED BY CABLE TOOL _____
				PRODUCTIVE RESERVOIR _____
				INITIAL PRODUCTION _____
FORMATION TOPS	DEPTH	SOURCE T.T.	E.L.	REMARKS
Older e Younger Alluvium	Surf			14-23
Transition 2m	1285			
TD	1427			
ES-SP, GR-SONIC				